UNIVERSITY OF MINNESOTA

This is to certify that I have examined this copy of a Plan B Project by

Rebecca Jean Lindgren-Lasser

and have found that it is complete and satisfactory in all respects, and that any and all revisions required by the final examining committee have been made.

Alexandra Luong, Ph.D.

Signature of Faculty Advisor

6/17/2021

Date

Fairness Perceptions and Reciprocity of Backup Behavior and the Effects on Individual Perceptions of Team Viability, Team Cohesion, and Self-efficacy

A Plan B Project

SUBMITTED TO THE FACULTY OF THE

UNIVERSITY OF MINNESOTA

BY

Rebecca J. Lindgren-Lasser

University of Minnesota Duluth

IN PARTIAL FULFILLMENT OF THE REQUIRMENTS

FOR THE DEGREE OF

MASTER OF ARTS

Dr. Alexandra Luong

June 2021

Acknowledgements

I would like to thank the Psychology Department at the University of Minnesota Duluth for funding this research. In addition, I would like to thank my committee members, Dr. Eric Hessler and Dr. Ormonde Cragun, for providing their time and expertise to enhance the quality of this project. I would also like to thank the UMD Psychology professors, with a special thank you to Dr. Julie Slowiak and Dr. Mallory McCord. I would also like to acknowledge my advisor, Dr. Alexandra Luong, for being an invaluable resource and mentor throughout this process. This milestone has been because of her support, guidance, and the opportunities she provided me.

Further, I would like to acknowledge the professors from Portland State University who provided undergraduate research experience, Dr. Larry Martinez and Dr. Todd Bodner. I would also like to thank my prior supervisors, Bruce Dougan and Sue Sampson, for the opportunities to develop the skills which have been instrumental to my success in graduate school. I would especially like to thank my prior supervisor, Rita Coleman, whose encouragement began my higher education journey.

On a personal note, a special thanks to Eduardo Reyes and Brit Anderson for your friendship and support, and to my siblings, Rory Henderson and Marc Lasser, and my father, Peter Lasser, for their encouragement and support. I also owe an immeasurable debt of gratitude to my children and husband for their support. Thank you, Maryjane, Caleb, and Zander-- you are my lighthouse. And to my husband, Jess Lindgren, thank you for being an example of excellence. I could not have accomplished this without your support and partnership.

Abstract

Backup behavior is a team process whereby one member of the team provides assistance to another member in order to help that individual accomplish their assigned tasks. This shift in effort by the assisting team member is a critical factor in achieving team effectiveness during periods of high workload or pressure. Although previous studies on backup behavior have shown a positive relationship between backup behavior and team productivity, prior research has not examined whether there may be costs to perceptions of the individual who engages in backup behaviors, to the extent that providing assistance increases individual workload and perceptions of inequity. The current study examined the influence of reciprocity on the individual's perceptions of team viability, team cohesion and self-efficacy. Non-reciprocal backup behavior negatively affected the individuals' perception of team cohesion and viability. However, non-reciprocal backup behavior did not demonstrate a significant effect on self-efficacy.

Table of Contents

List of Tables

Fairness Perceptions and Reciprocity of Backup Behavior and the Effects on Individual Perceptions of Team Viability, Team Cohesion, and Self-efficacy

The ability for individuals to work in teams has become increasingly relevant in the modern workplace (Burch & Anderson, 2004). Teams are creating a higher interdependence among individuals that requires the coordination of tasks, and unlike individual work, teamwork emphasizes a shared purpose and interconnection among its members (Hu & Liden, 2015). The essence of this interdependence is the ability to assist the performance of other team members through task-related helping. This task-related helping is viewed as contributing substantially to team success (Harris & Barnes-Farrell, 1997).

Backup behavior is a means of task-related helping where teams can manage the unexpected variances of workload volume. As many teams experience unforeseen increases in work volume or decreases in staff, the use of backup behaviors to overcome temporary challenges is the cornerstone of effective teams (Porter et al., 2003). While backup behavior can benefit team performance during a period of sporadic, unpredicted work overload, research needs to investigate whether the regular reliance on this mechanism may incur costs to individual performers (Barnes et al., 2008).

Backup behavior has been identified as an important factor of effective teamwork (McIntire & Salas, 1995) and is defined as “the discretionary provision of resources and task-related effort to another member of one’s team that is intended to help that team member obtain the goals as defined by his or her role” (Porter et al., 2003, p. 391). The ability to anticipate other team members’ needs through accurate knowledge about their

responsibilities allows the team to shift workload among members to achieve balance during high periods of workload or pressure (Marks et al., 2001). This includes assisting a team member by carrying out actions or assuming a task.

To date, the research on backup behavior is limited and the effects of backup behavior on the individual and subsequent attitudes have not been examined. Although these influences of backup behavior have not been examined, research from organizational citizenship behavior (OCB) suggests there are unintended negative consequences to helping behaviors. For example, pressure to engage in OCBs has been demonstrated to increase deviant behaviors (Koopman et al., 2019). OCBs have also been demonstrated to become normative when the costs to performing them outweigh the benefits (Bergeron, 2007) and to be considered in-role performance the more an individual engages in them (Van Dyne & Ellis, 2004). These unintended consequences to helping behaviors warrant a closer examination of whether negative outcomes for the individual team member are present when backup behavior is used for team effectiveness.

The purpose of this study is to examine individual perceptions of providing and receiving backup, as the reciprocity of these behaviors can influence perceptions of fairness. When the rate of providing task-related help exceeds the amount of receiving task-related help, this creates over-reciprocating. When the quantity of receiving task-related help exceeds the degree of providing task-related help, this creates under-reciprocating. By examining the reciprocity of providing and receiving backup behavior, this study aims to identify when this exchange is beneficial versus disadvantageous to the

individual team member. A critical aspect of the exchange of backup behavior is the perception of fairness, as unfair perceptions stand to negatively influence attitudes. In order to have a complete understanding of backup behavior, it is important to parse out the team outcomes of this process from individual outcomes, as well as performance from attitudes and well-being.

Barnes et al. (2008) critiqued the backup behavior research in that it needed to include social processes inherent in team contexts, as "to enrich theory and research examining backing-up behavior, research must include these social influences" (p. 532). Porter et al. (2003) stated that to provide a more complete picture of the effects of backup behavior, this process should examine the relationship between backup in teams on social criteria. This study will build on the suggestion of Barnes et al. and Porter et al. by examining the social exchanges and norms of reciprocity of backup behavior, and posits that when reciprocity is disproportional the resulting perceptions of unfairness will negatively influence the individual's perceptions of the team and self. Below, I will begin by defining team constructs, followed by the differentiation of backup behavior from OCBs. After which, I will provide a review of the backup behavior literature. This will be followed by a discussion of the theoretical framework and rationale for this study through distributive justice, social exchange theory, and norm of reciprocity.

Teams and Teamwork

The necessity for individuals to work in a team context arises when work tasks are centered around collective actions toward the production of a good or service. A team is defined as a group of two or more people who perform interdependent tasks to work

toward accomplishing a common goal or specific objective (Baker & Salas, 1992). Teamwork is composed of interdependence of action, shared responsibilities, and a common meaningful goal where members will take on specialized roles to achieve the function of the group (Cannon-Bowers & Bowers, 2011). McGrath's (1964) team framework of input-process-output (I-P-O) model illustrate how team effectiveness is produced on teams. Inputs are the variables of the individual and the team that exist prior to performance (Cannon-Bowers & Bowers, 2011). Team processes are the mediating mechanisms linking team inputs to team outcomes (Marks et al., 2002). Processes include how the team engages to accomplish task demands, such as the interactions of behavior, cognition, and affect. Outputs are the resulting outcomes, such as team performance (Cannon-Bowers & Bowers, 2011). Hackman's (1987) variation on the I-P-O model emphasizes that team effectiveness is a component of the team members' needs being satisfied in order to maintain the future functioning of the team (Cannon-Bowers & Bowers, 2011). According to Hackman, team effectiveness is more than just the outcome of performance and should include social criteria as well as attitudes of the team (Cannon-Bowers & Bowers, 2011).

Backup Behavior

Organizational Citizenship Behavior Compared to Backup Behavior

Backup behavior is a form of interpersonal helping directed toward benefits to the organization or team. As an OCB, interpersonal helping is a discretionary prosocial behavior (Bolino & Grant, 2016; Lee & Allen, 2002; Organ, 1988). Although OCBs are extra-role behaviors, they can reflect an individual's desire to maintain or enhance the

social context of the team through positive exchange relationships needed for the long-term functioning of the team. For example, these behaviors benefit the workgroup by providing a motivation to cooperate (Cohen et al., 2012; Huffmeier & Hertel, 2011; Organ & Ryan, 1995). Forms of interpersonal helping include listening to a personal problem, covering when an individual is absent, or actions taken to avoid a problem (Taber & Deosthali, 2014). However, backup behavior is specifically task-related and focused on using one's effort to assist another team member accomplish duties directed at the team's performance (Porter et al., 2011). Whether an individual engages in OCBs does not directly affect performance, as OCBs are not tied to job tasks or rewards. Nevertheless, as a team becomes dependent on the process of backup behavior to avoid costs to productivity, this thereby changes the discretionary nature of task-related helping to an in-role behavior. As pressure is created to engage in backup behavior, this pressure changes the perception of helping by the managers and workers to a formal job requirement (Taber & Deosthali, 2014).

Antecedents and Moderators of Backup Behavior

Backup behavior was demonstrated to be a mediating mechanism between various antecedents and team performance. For example, backup behavior mediated the process between efficacy beliefs and team performance (Porter et al., 2011). Other antecedents to backup behavior include the personality traits of conscientiousness, emotional stability, and extroversion, which have been identified as having a positive relationship with providing backup. In addition, individuals high in conscientiousness were more likely to decern when asking for help was appropriate and limited requesting backup to

circumstances in which a legitimate need was present (Porter et al., 2003). It has also been demonstrated that when individuals who have a central position on the team model backup behaviors, then other team members will increase the degree to which they performed backup behaviors (Li et al, 2015). Further, research has demonstrated a positive relationship with team traits, such as a learning goal orientation, and backup behaviors (Porter et al, 2005).

Research has also explored the moderators of backup behavior. For example, individuals who were viewed to have a legitimate need for backup were more likely to receive help (Porter et al., 2003). In addition, workload distribution moderated backup behaviors whereby uneven workload distributions facilitated the ability to engage in backup behavior, as individuals with lower workloads were better positioned to assist individuals with high workloads. However, an even workload distribution required assigned tasks to be ignored, thereby decreasing individuals' ability to perform backup behaviors (Barnes et al., 2008). Furthermore, the more experience team members had working together increased the team's shared mental models, which in turn resulted in more backup behavior being requested and accepted (Smith-Jentsch et al., 2009). Similar experience levels of team members were also found to improve the teamwork behavior of information sharing, which resulted in providing better feedback and backup (Sulistyawati et al., 2009).

Even though these studies provided useful insight into backup behavior, none of these prior studies examined the impact of backup behavior on the individual level or the effect backup behavior has on attitudes. These prior studies have presumed the

importance of backup behavior for team effectiveness as laid out by Salas et al. (2005); therefore, the focus of backup behavior in these studies has been on maximizing this process on teams. Overwhelmingly, these studies have focused on increasing team performance. However, in order for the backup behavior literature to be comprehensive, research needs to include the impressions from the individual who performs these behaviors because the attitudes generated from team processes will influence future engagement in the process.

Limitations of Backup Behavior

The process of backup behavior is not without consequences, as a shift in workload can be a drain on time and cognitive resources (Smith-Jentch et al., 2009). A backup recipient must be aware of the backup provider's current workload and the backup provider's ability to take on additional tasks. Backup providers must either have time or risk neglecting assigned work tasks, as well as have the required task knowledge to assist an overloaded team member (Barnes et al., 2008; Porter et al, 2003). In addition, the backup provider requires the awareness of the current workload that exceeds the backup recipient's capabilities (Smith-Jentch et al., 2009). Job demands, which are physical, social, or organizational aspects of a job that require sustained physical or mental effort, can negatively affect backup behaviors, such as decreased levels of quality for task performance (Costa et al., 2014). Therefore, backup behavior can have an unfavorable effect on individual performance. These findings suggest that backup behavior is not a cure-all for team functioning when there is an extraneous need for help from team members. Therefore, backup behavior may be viewed as an unfair process

when certain individuals are shouldering more of the workload, while other individuals are lacking the resources needed to accomplish their tasks.

Fairness Perceptions

The organizational literature has demonstrated that workplace fairness perceptions have significant outcomes on behaviors; therefore, negative effects from unfairness perceptions have been studied extensively. For example, fairness has been demonstrated to be a significant factor in perceptions of pay (Jawahar & Stone, 2011), selection procedures (Smither et al., 1996; Konradt et al., 2017), employee promotion systems (Kaplan & Ferris, 2001), reactions to organizational events (Horvath & Andrews, 2007), and decision making (Kouchaki et al., 2015). Given the many arears in the workplace in which fairness perceptions have influence, it stands that fairness would also extend to perceptions associated with backup behavior.

Fairness is fostered when outcomes are viewed to be equally applied. Fairness perceptions are conceptualized through organizational justice, to which the three main facets are procedural justice, distributive justice, and interactional justice. Procedural and interactional justice concerns fairness as it relates to the organization itself, such as the policies of the organization and the treatment by the organizational actors (i.e., supervisors, managers). Distributive justice, on the other hand, is concern with the socially just allocation of resources. While procedural and interactional justice focuses on the perceptions from formal power relationships, distributive justice can entail non-authority sources. Team members who lack authority over each other will form unit-level judgments of group fairness (Cropanzano et al., 2011; Li et al., 2013).) These judgments

affect team processes and outcomes. For example, task teamwork processes produce team performance and interpersonal teamwork processes produce helping and loyalty (Cropanzano et al., 2011). Therefore, whether a teamwork process is perceived to be fair by the group will influence team performance, helping, and loyalty.

Distributive justice further focuses on the cognitive, affective, and behavioral reactions to the perceptions of fairness. Perceived fairness will affect the individual's emotions, distort their cognitions, and individuals will respond with change in their behavior through performance or withdrawal to restore equity (Cohen-Charash & Spector, 2001). Therefore, individuals report poorer work attitudes when unfairness is perceived, and individuals will reciprocate with performance when fairness is perceived. (Cohen-Charash & Spector, 2001). Equity theory (Adams, 1963) further explains the desire to restore equity, as individuals' value fair treatment and are motivated to maintain work-related relationships dependent upon the interchange of inputs to outputs. One response to a lack in equilibrium is to adjust inputs accordingly (Adams, 1963). Further, employee perceptions of distributive justice relate to employee behaviors of OCB and task performance through felt obligation to reciprocate perceived just treatment (Roch et al., 2019). Therefore, justice serves as an input to social exchanges that influence the norm or reciprocity.

Social Exchange and Reciprocity

Backup is a form of prosocial behavior due to its helping nature. Prosocial behavior is the intent to benefit others through positive social actions and includes helping, sharing, cooperating, obeying rules, and conforming to socially accepted norms

(Bolino & Grant, 2016). An organization benefits when individuals engage in these behaviors, as positive social actions, such as cooperation and coordination, are necessary for obtaining the goals of the organization. In addition, helping others can be an expression of personal characteristics, such as prosocial self-concept or prosocial values (Taber & Deosthali, 2014). Individuals who engage in prosocial behaviors will also build social capital, as putting the interest of the team first garners respect from the group. Therefore, when an individual provides backup to another member of the team, the prosocial behavior will be viewed favorably by the team. The team will reward the individual's sacrifice and loyalty by responding in kind (Anderson &Williams, 1996).

Social exchange theory (Blau, 1964) further explains the interaction of two parties that implement a cost-benefit dynamic, as individuals are motivated to engage in behaviors that maximize rewards and minimize costs. Many individuals are motivated to engage in task-related helping as contribution to the team and organization, as well as a personal value of helping others. However, in one study, 39% of participants indicated that they engage in task-related helping because helping others is contingent, has an expectation of reciprocity, or is a job responsibility (Taber & Deosthali, 2014). Although certain individuals will provide task-related helping regardless of reciprocity, for many individuals their intention to perform backup will be directly influenced whether the team is performing backup as well. Therefore, for many individuals task-related helping is based on a cost-benefit exchange where reciprocity is an influential factor.

When individuals feel that their workplace relationships are rewarding, they feel obligated to reciprocate with positive social exchanges (Cohen et al., 2012). Individuals

that place value on being compliant with norms will exhibit the desire to engage in social exchanges, as social effects from the team propels them to engage in reciprocity (Lam & Lambermont-Ford, 2010). Individuals who are more sensitive to obligations will exhibit a strong exchange ideology (Eisenberger et al., 1987). Those high in this ideology are more aware of their obligations to others and others' obligations to them. Therefore, these individuals will feel indebted to provide backup to members of the team who have helped them. This reciprocal nature of backup behavior can further be explained through the norm of reciprocity.

Positive social exchanges prompt the reciprocity of norms, and helping behaviors are a natural form of reciprocity for interdependent teams (Kamdar & Van Dyne, 2007). The norm of reciprocity is an underlying social principle consisting of the value that "people should help those who have helped them, and people should not injure those who have helped them" (Gouldner, 1960, p. 171). Therefore, prosocial behaviors are not necessarily unconditional, as benefits or favors among individuals creates the feeling that the recipient is indebted to repay. This creates an obligatory nature to the exchange, with the return of the favor being roughly equivalent to the favor received (Gouldner, 1960). Three forms of reciprocity for task-related helping are a transaction exchange, where the individual expects that the help they provide should and will be paid back; a folk belief, where the individual believes that good deeds are rewarded and bad deeds are punished (i.e., just world hypothesis); and a moral norm, where the individual believes that one is obligated to match deeds with an equivalent or greater deed (Taber & Deosthali, 2014).

However, it is important to also consider the negative effects that can emerge from prosocial behavior.

Negative Effects of Prosocial Behavior

Research has revealed when the desire to help others is a burden or outweighs one's motivation to fulfill more important job responsibilities that it can result in taking on too much work, which in turn produces work overload, stress, or reduce levels of performance (Grant, 2008). Negative impact of prosocial behavior includes exhaustion, inefficiency, injustice, unethical behavior, and exploitation (Bolino & Grant, 2016). Prosocial behaviors can also be undermined by organizations that use outcome-based systems which primarily reward individual accomplishments (Bergeron et al., 2013). The level of reward interdependence should match the level of task interdependence for the team to be at its most effective (Cloquitt & Jackson, 2006).

While some believe that individuals act altruistically and engage in prosocial behaviors without an expectation of receiving material or social reward, empirical research has investigated the underlying motivation of an individual to engage in this behavior. Those who are low in exchange ideology (Eisenberger et al., 1987) are less likely to give or receive help. In addition, individuals are motivated to respond in ways which restore equity, which can include negative reciprocity. Negative reciprocity is the return of injuries as oppose to the return of benefits (Greco et al., 2019). Passive forms of negative reciprocity include retaliation and withdrawal behaviors where individuals engage in negative behaviors to punish the organization due to perceived unfairness (Skarlicki & Folger, 1997) or attempt to avoid the work situation through withdrawal of

positive behaviors such as helping (Hanisch & Hulin, 1990). Research has indicated that negative behaviors are more likely to be returned in equal measure than positive behaviors (Greco et al., 2019). In addition, individuals who generally feel that the world is unfair do not see a significant connection between being treated fairly and an obligation to reciprocate just treatment (Roch et al., 2019).

Dependent Variables and Hypotheses

Self-efficacy

Individual performance is strengthened when one exhibits self-efficacy and feedback from the environment can confirm one's self-efficacy belief. Self-efficacy is a personal judgment of how well one can execute courses of action required to deal with prospective situations (Bandura, 1982). Positive mastery of experience will increase self-efficacy (Chowdhury et al., 2002) and comparing to similar others is one way in which people judge their efficacy beliefs (Bandura, 1982). Therefore, asking for help will not impact the individual's judgement of self when others on the team are asking for backup at a similar rate. As reciprocating backup behavior becomes the norm, the team will equally engage in both aspects of the process and this comparison to the other members of the team reflects comparable competence to meet demands, which will reinforce the individual's self-efficacy.

Non-reciprocal backup behavior stands to have a negative impact on self-efficacy. Individuals are affected by feedback from the environment in that negative mastery experiences, or failure, will decrease self-efficacy (Chowdhury et al., 2002). Individuals with low self-efficacy are less likely to withstand the negative feedback on their

performance (Chowdhury et al., 2002). Therefore, the absence of backup which leads to an inability to complete tasks will communicate negative mastery information that leaves the individual unable to meet the demands of the job. When an individual is unable to accomplish assigned tasks, the resulting feelings of incompetence stands to decrease self-efficacy. The ability to assist team members stands to provide positive mastery information. However, there is the potential for negative mastery information to be manifested in circumstances where the individual is unable to meet the increased workload demand when dividing their time between their own assigned tasks and tasks of their teammates. When the situation creates a feeling of "expecting too much" the over-reciprocator will potentially have decrease perceptions of competence and self-efficacy.

Hypothesis 1: Participants who perceive backup behavior as non-reciprocal will report lower levels of self-efficacy.

Team Cohesion

When team members have positive affect toward each other, or team cohesion, this strengthen bond of the team will be displayed in the team's ability to gauge and meet the needs of each other. Team cohesion is the strength and extent of interpersonal connection existing among the members of the team (Beal et al., 2003). The more cohesion a team exhibits, the more affinity the team members have for each other. That desire to remain on the team increases the frequency of positive social exchanges (Cohen et al., 2012). When members identify with the team this can result in the suppression of self-interest and increase levels of interaction and agreement (Ehrhart & Nauman, 2004). When the norm of the team is to reciprocate backup behavior, this will produce

confidence that the team members will agree to provide help and recipients will be less concerned about the negative stigma of asking for help (Smith-Jentch et al., 2009). This will increase the effective functioning of the team and stands to produce perceptions of team cohesion. This relatedness to their team members will be reflected by the requests from recipients for backup being viewed by the provider as legitimate (Porter et al., 2003) and those requests being reciprocated through providing backup.

The negative imbalance of backup behavior will also be seen through its impact on team cohesion. Teams with low cohesion lack well defined behavioral norms (Cohen et al., 2012) as well as experience greater difficulty in managing conflict. This mismanagement of conflict will further propel the low levels of cohesion (Marks et al., 2001). When non-reciprocal backup behavior occurs on a team, this stands to negatively impact team cohesion as the team member will potentially harbor negative feelings toward other team members as their needs are not being meet, therefore, exhibiting less perceptions of cohesion. Over-reciprocating stands to decrease the individual's perceptions of team cohesion as the strains from having to increase their workload and neglect their assigned tasks creates negative feelings of exploitation and unfairness.

Hypothesis 2: Participants who perceive backup behavior as reciprocal will report higher levels of team cohesion, whereas participants who perceive backup behavior as non-reciprocal will report lower levels of team cohesion.

Team Viability

Viability is an important construct to examine on teams to capture the interpersonal dimension of performance (Barrick et al., 1998). Team viability is the

capacity of the team to function interdependently in the future as an intact unit and reflects the team's ability to function adequately over time (Barrick et al., 1998). When there is a norm to reciprocate backup behaviors, individuals on the team will potentially have increased perceptions of viability as they will see a demonstrated ability of the team's flexibility to meet demands successfully. A team's ability to work together interdependently in the long-term is dependent upon the team's ability to cooperate (Marrone et al, 2007). A study by Sinclair (2003) indicated that teams who exhibit greater cooperation have higher perceptions of team viability, indicating that the cooperating nature of reciprocating backup behaviors will be a significant predictor of perceived team viability, as this is reflective of the team's capacity to manage changing demands (Rousseau & Aube, 2010).

Teams without viability will experience burnout, unresolved conflict, increased divisiveness, and a decreased willingness to work together (Marrone et al, 2007); therefore, perceptions of team viability will be a significant factor in team effectiveness. Adverse internal dynamics will reduce a team's viability (Marrone et al, 2007) and a team low in viability will lack the capability to maintain itself (Barrick et al., 1998). When there is under-reciprocating of backup behavior, perceptions of team viability will potentially decrease as the individuals who do not receive needed help are unable to meet demands. The lack of cooperation displayed through request for help not being met stands to negatively impact perceptions of team viability. A study by Sinclair (2003) indicated that cooperation is a significant predictor of team viability perceptions. In addition, Marrone et al. (2007) found that role overload negatively affects team viability;

therefore, when over-reciprocating occurs this also stands to decrease perceptions of team viability. This will potentially inhibit the ability of the team to function in the long term. Individuals who are over-reciprocating backup will potentially feel that without their personal extra efforts the team would lack in its ability to function, and therefore, the removal of themselves from the team would inhibit the team's future functioning.

Hypothesis 3: Participants who perceive backup behavior as reciprocal will report higher levels of team viability, whereas participants who perceive backup behavior as non-reciprocal will report lower levels of team viability.

Method

Participants

The participants for this study were recruited from Amazon's Mechanical Turk (Mturk). Mturk was selected as the format due to Mturk workers closely reflecting the population and the ability to survey a broad range of occupations (Cheung et al., 2017). The participants were paid $0.75 for their participation and average completion time was seven minutes. Nine participants were removed before data analysis for missing responses to the questionnaire items and 47 participants were removed before data analysis for failing an attention check, resulting in a total of 794 participants. To qualify for the study, participants needed to be at least 18 years of age, a resident of the United States, work in a position that requires teamwork, currently or recently employed within the prior six months, and work an average of 20 hours or more each week.

The participants ranged in age from 19 to 76 years with a mean age of 37 years and SD of 10.6, with 2.5% of the participants declining to state age. The gender of the

participants was 58.6% male, 40.4% female, and 1% declined to state gender. The education level of participants was 56.7% with bachelor's degrees, 25.3% with master's degrees, 6% with associate degrees, 6.2% with some college, 4% with high school diplomas, and 1.8% declined to state education. The ethnicity of the participants was 71.2 % White/Caucasian, 13.1% African American/Black, 8.3% Asian/Pacific Islander, 5.7% Hispanic/Latinx, 0.8% Native American/Alaskan Native, 0.5% other, and 0.4% declined to state ethnicity. Employment status of the participants were 91.9% currently employed, 6.4% self-employed, 1.1% unemployed, and 0.6% declined to state employment status. The average hours worked per a week was 46.6% worked 33 – 40 hours per week, 31.6% worked more than 40 hours per week, 11.3% worked 25 – 32 hours per week, 10.4% worked 24 or less hours per week, and 0.1% declined to state average hours worked. The mean length of tenure in current position was 6.48 years with SD of 5.7, and 6.5% declining to state length of time in current employment. There was a broad range of industries and occupations indicated by participants, with the most frequent sectors identified as Software/IT 18.5%, Banking and Financial Services 17.5%, Manufacturing 15.5%, Healthcare 10.2%, and Education 10.2%.

Procedure

Mturk workers interested in participating in the study initially responded to questions that indicated whether qualification criteria were met. To ensure that participants had adequate experience working in a team context, two questions inquired about employment status and average of hours worked. If this requirement was met, the position of the participant needed to be assessed as to whether it involved interdependent

teamwork. Due to the nature of backup behavior, it was important that the tasks of the team had reciprocal interdependence, as members of a team can work independently or sequentially on tasks. Therefore, a teamness measure was used to assess team task characteristics. The reciprocal interdependence measure (Pearce & Gregerson, 1991) consisted of five items and has a Cronbach alpha of .76 (Appendix A). Participants who rated any of the items "*once in a while*" or "*never*" were exited out of the study. Those who rated "*always*," "*most of the time*," or "*half of the time*" to all five items were invited to participate in the study and consent was obtained from those wanting to participate (Appendix B).

After consent was obtained, participants provided information about their job and position before responding to the questionnaire. Work questions were presented first to prime the participant to be thinking about characteristics of their job and included innocuous items about task behaviors. To mitigate insufficient response effort, which is often cited as a limitation of Mturk workers (Hamby & Taylor, 2016), attention checks were used to ensure that only those participants who demonstrated sufficient effort in responding to questionnaire items were included. An incorrect response for one attention check resulted in the survey forcing the participant to exit. An additional attention check was embedded within the survey items and instructed the participant which response to select. Participants who failed this attention check were removed before data analysis.

This study used self-report questionnaires for each of the variables. Because this study was examining perceptions from the individual about the team and self, self-report measures were an appropriate means to collect data. This study examined the exchange of

backup behavior as a provider and a recipient. To eliminate self-bias in assessing whether the participant is more often a provider or a recipient of backup behavior, difference scores from the provider scale and the recipient scale were used to calculate a reciprocity index for backup behavior. For the items about team perceptions, the participants were provided with this prompt: "Using your job that you indicated in the prior questions, reflect on experiences from working in this position in order to indicate how much you or your coworkers engage in these behaviors or activities." For the items about the self, participants were provided with this prompt: "Continuing to keep the job position in mind from the prior questions, please indicate how much you agree with the following statements regarding yourself." For all participants, the backup behavior measure was presented first, the order of the dependent variable measures was randomly presented, and the prosocial motivation measure was presented last. Before completion of the questionnaire, the participants were asked to provide demographic information.

Measures

Backup Behavior

Backup behavior was measured using a subscale of the team-member exchange scale (Seers, 1989; Seers et al., 1995). This scale was designed to measure several behaviors of team interactions, and since this study was focusing specifically on the behavior of providing and receiving task-related help, only the exchange subscale which measure these behaviors was used. Of the six items (Appendix C), three measured the degree task-related help was provided and three measured the degree task-related help was requested and received. The exchange subscale has a Cronbach alpha of .83. The

measure used a 5-point Likert scale from 1 (*never*) to 5 (*always*). Items were modified for clarity, for example: "How willing others are to finish work assigned to me" was modified to "Others are willing to finish work assigned to me" and "How often I ask others for help" was modified to "I often ask others for help."

This study examined the exchange of providing and receiving backup behaviors; therefore, the three items which measured receiving were composited into one score and the three items which measured providing were composited into one score. A reciprocity index of the two scores was calculated following the procedures used by Cruza-Guet et al. (2008) and McCulloch (1990), where the receiving scale items were subtracted from the providing scale items (providing - receiving = index score). Although prior studies used negative scores to indicate under-reciprocating (receive more help than provides) and positive scores to indicate over-reciprocating (provides more help than receives), for the purpose of the present study, non-reciprocity was examined irrespective of over- or under-reciprocating. Therefore, the absolute value of the index score was used with scores further from zero indicating increased non-reciprocal backup behavior between the team and self, and zero scores indicating reciprocity of backup behavior between the team and self.

Self-efficacy

Self-efficacy was measured using the job self-efficacy scale from Wilk and Moynihan (2005) and contained the following three items (Appendix D): "I am certain that I can meet the performance standards of this job," "I am confident that I am able to successfully perform my current job," and "I feel I have the skills and knowledge

necessary to complete my job effectively." This scale used a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) and has a Cronbach alpha of .89.

Team Cohesion

Team cohesion was measured using Podsakoff et al. (1993) 6-item scale (Appendix E) that has a Cronbach alpha of .84. This scale used a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample items include "The members of my work group know they can depend on each other" and "There is a great deal of trust among members of my work group."

Team Viability

Team viability was measured using Rousseau & Aube (2010) 4-item scale (Appendix F) that has a Cronbach alpha of .80. This scale used a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The items of this scale are: "Team members adjust to changes that happen in their work environment," "When a problem occurs, the members of this team manage to solve it," "New members are easily integrated into this team," and "The members of this team could work together for a long time."

Prosocial Motivation

Prosocial motivation was measured using Grant (2008) 4-item scale (Appendix G) that has a Cronbach alpha of .90. The scale used a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). A prompt stated: "Please indicate why you are motivated to do your work by rating how much you agree with the following statements." These items were modified for clarity, for example: "Because I care about benefiting

others through my work" was modified to "I care about benefiting others through my work."

Results

Descriptive statistics for the antecedent variables (backup providing, backup receiving, and reciprocity) and outcome variables (self-efficacy, team cohesion, and team viability) are shown in Table 1. Reciprocity was calculated by subtracting backup receiving from backup providing, which created an index range of -4 to 4, as ratings were on a 5-point Likert scale (1- *never* to 5-*always*). Zero scores indicated reciprocity of backup behavior (i.e., same rating on backup providing and backup receiving) and numbers further from zero indicated greater levels of non-reciprocity. Although positive numbers indicated over-reciprocating and negative numbers indicated under-reciprocating, the absolute value of the index was used for non-reciprocity, irrespective of over- or under-reciprocating. Although prior studies have used difference scores to examine the effects of over- and under- reciprocating support (Cruza-Guet et al., 2008; McCulloch, 1990), there has been critique in the literature regarding the use of difference scores, as algebraic differences can cancel out the relative contribution to the relationship (Liang et al., 2001; Nahum-Sani & Bamberger, 2011). However, the implied constraints can be tested to determine validity for correct interpretation (Liang et al., 2001). These constraints are tested in regression models that treat the individual measures (i.e., backup providing or backup receiving) as independent variables and not as one variable composed of the difference. If comparison of the coefficients determines the direction is opposite and similar in absolute magnitude, then the use of the difference scores as a

congruent measure is valid (Liang et al., 2001). Therefore, correlations of backup providing and backup receiving were examined with the reciprocity index. The reciprocity index correlated with backup providing, $r(792) = .144$, $p < .01$ and backup receiving, $r(792) = -.103$, $p < .01$, indicating the acceptable use of the reciprocity index. Table 2 depicts correlations between all study variables.

Table 1

Means and standard deviations of team member exchange and dependent variables.

	Mean	SD
Backup Providing	3.48	0.88
Backup Receiving	3.36	0.92
Reciprocity Index	0.44	0.44
Team Viability	4.00	0.60
Team Cohesion	4.07	0.65
Self-efficacy	4.22	0.67
Prosocial Motivation	4.06	0.71

Note. N =794

Table 2

Correlation coefficients for study variables.

Variable	1	2	3	4	5	6	7
1. Backup Providing	—						
2. Backup Receiving	.77**	—					
3. Reciprocity Index	.14**	-.10**	—				
4. Team Viability	.33**	.33**	-.08**	—			
5. Team Cohesion	.27**	.28**	-.07*	.72**	—		
6. Self-efficacy	.05	.02	-.04	.57**	.60**	—	
7. Prosocial Motivation	.31**	.26**	.01	.63**	.63**	.53**	—

Note. N =794

* $p < .10$, ** $p < .05$

Hierarchical regression analysis was conducted to test the hypotheses. The use of hierarchical regression allowed for component parts to be entered in the model first, followed by the absolute difference scores. This two-step approach explained the significance of the incremental variance after accounting for the component parts. Backup receiving and backup providing were entered in the first step and reciprocity was entered in the second step to test the incremental effects of reciprocity above and beyond providing and receiving backup support. Because participants were from different teams, responses were not in a nested structure and analysis was conducted at the individual level.

Results indicated that Hypothesis 1, which predicted that individuals who perceived backup behavior as non-reciprocal would have decreased perceived self-

efficacy, was not supported (see Table 3). Results indicated that Hypothesis 2, which predicted that individuals who perceived backup behavior as reciprocal would report higher levels of team cohesion than individuals who perceived backup behavior as non-reciprocal, was supported with 9% of the total variance explained by the model, $F(3,790) = 39.65$, $p < .01$, $\Delta R^2 = .006$. Regression results for team cohesion are depicted in Table 4. Results indicated that Hypothesis 3, which predicted that individuals who perceived backup behavior as reciprocal would report higher levels of perceived team viability than individuals who perceived backup behavior as non-reciprocal, was supported with 13% of total variance explained by the model, $F(3,790) = 39.65$, $p < .01$, $\Delta R^2 = .008$. Regression results for team viability are depicted in Table 5. Collinearity was examined, in which correlations with predictor variables were less than 0.80, the variance inflation factor (VIF) was below three, and the tolerance was above 0.2. Therefore, no multicollinearity was present.

Table 3

Hierarchical regression predicting self-efficacy.

Variable	B	95% CI for B		β	SE	*F*	Δ*F*	R^2	ΔR^2
		LL	UL						
Step 1						1.29		.003	
Constant	4.11*	3.91	4.30		.10*				
Backup Providing	.06	-.02	.15	.08	.04				
Backup Receiving	-.03	-.11	.05	-.04	.04				
Step 2						1.89	3.09	.003	.004
Constant	4.14*	3.94	4.30		.10*				
Backup Providing	.09*	.01	.18	.12*	.05*				
Backup Receiving	-.05	-.14	.03	-.07	.04				
Reciprocity Index	-.10	-.21	.01	-.07	.06				

Note. N = 794

* $p < .05$

Table 4

Hierarchical regression predicting team cohesion.

Variable	B	95% CI for B		β	SE	*F*	Δ*F*	R^2	ΔR^2
		LL	UL						
Step 1						36.75*		.085*	
Constant	3.31*	3.13	3.49		.09*				
Backup Providing	.11*	.03	.18	.14*	.04*				
Backup Receiving	.12*	.04	.19	.17*	.04*				
Step 2						26.33*	5.13*	.091*	.006*
Constant	3.35*	3.17	3.54		.09*				
Backup Providing	.14*	.06	.22	.19*	.04*				
Backup Receiving	.09*	.01	.16	.12*	.04*				
Reciprocity Index	-.12*	-.22	-.01	-.08*	.05*				

Note. N = 794

*$p < .05$

Table 5

Hierarchical regression predicting team viability.

Variable	B	95% CI for B		β	SE	*F*	Δ*F*	R^2	ΔR^2
		LL	UL						
Step 1						55.52*		.123*	
Constant	3.16*	2.99	3.32		.08*				
Backup Providing	.12*	.05	.18	.17*	.04*				
Backup Receiving	.13*	.07	.20	.20*	.03*				
Step 2						39.65*	7.07*	.131*	.008*
Constant	3.20*	3.04	3.37		.08*				
Backup Providing	.15*	.08	.22	.22*	.04*				
Backup Receiving	.10*	.03	.17	.15*	.04*				
Reciprocity Index	-.13*	-.22	-.03	-.10*	.05*				

Note. N = 794

* $p < .01$

In addition, prosocial motivation was examined as a covariate and as a moderator. Although not hypothesized, the literature indicated the potential of prosocial motivation differences in individuals will influence the engagement in social exchanges and norms of reciprocity (Bolino & Grant, 2016). Therefore, exploratory analysis was conducted to further investigate the potential relationship of prosocial motivation with backup behavior. First, prosocial motivation was examined as a covariate by correlating the reciprocity index with prosocial motivation and was found to be non-significant. Next, PROCESS (Hayes, 2018) for SPSS 27 with a bootstrap confidence interval of 5000 was used to examine prosocial motivation as a moderator between reciprocity and each of the

separate dependent variables of team cohesion, team viability, and self-efficacy. Simple moderation analysis did not reveal any significant findings. Therefore, prosocial motivation did not function as a moderator for backup behavior.

Discussion

The current study extends the literature on backup behavior by examining how perceived reciprocity influences individuals' perceptions toward the team and self. Findings indicated that when reciprocity is perceived in providing and receiving backup support from team members, individuals perceived greater team viability and cohesion. In contrast, when non-reciprocity was perceived, individual perceptions of team viability and cohesion were negative.

It is of relevance that this study found that reciprocity was influential above the effects of providing and receiving backup. Research has indicated that there are positive effects from giving and receiving help. For example, providing help creates consistency between one's values and behaviors, and receiving help can promote a more favorable view of others, reduce the perceived costs of helping, and encourage focus on long-term relationships over short-term cost (Grant & Dutton, 2012). However, it is important to consider the social exchanges of providing and receiving backup, as individuals engage in behaviors based on a cost-benefit dynamic (Blau, 1964). Norms of reciprocity are beneficial when positive social exchanges motivate individuals to reciprocate through felt indebtedness to repay those who have helped them (Gouldner, 1960). The findings of this study suggest that compliance with reciprocity norms creates the positive feelings needed for the reciprocal patterns of social exchanges, and that having a norm to reciprocate

backup provides a psychological benefit to team perceptions. In addition, high-quality relationship with team members reduces fatigue from performing helping behaviors, as engaging in helping behaviors is less costly when there is reciprocity (Bergeron, 2007). Therefore, when backup is reciprocal, the benefits outweigh associated costs to providing backup.

However, if the team members whom the backup provider has helped do not reciprocate backup, then the costs of providing backup are overshadowing the perceived benefits. When there are violations of reciprocity norms, this results in negative feelings that produces psychological costs to perceptions of the team. It is important to consider the effects of reciprocity because this involves the individual weighing providing backup against past backup received, as well as the potential future need for backup. Individuals will engage in task-related helping with an expectation of future reciprocating (Taber & Deosthali, 2014), indicating that backup provided is an investment for a potential future need as a backup recipient. The social support literature has found that support provided through social exchanges can produce a bank where a past surplus of help accumulates to be drawn upon in the present (Liang et al., 2001). When these support banks are low, the inequity will be influential in present exchanges. When an individual provides help to a team member who did not fulfill a past request for backup, the inequivalence to the exchange relationship negatively influences the backup provider's perception.

Therefore, non-reciprocal backup behavior is creating situations in which individuals are giving and receiving an inequitable amount of the team's resources. When work activities and job demand vary across team members, the team must pool resources

to assist those members who have a higher task demand (Porter et al., 2003). When these team resources have an uneven allocation, such that certain individuals are over- or under-reciprocating backup, individual team members can view this as a violation of distributive justice. In addition to distributive justice being concerned with the socially just allocation of resources, it also focuses on the cognitive, affective, and behavioral reactions to the perceptions of outcomes as positive or negative, such as the quality and quantity of work (Cohen-Charash & Spector, 2001). When an outcome is perceived to be unfair this will affect the individual's emotions and distort their cognitions. Prior research has demonstrated that individuals who perceived unfairness reported poorer work attitudes (Cohen-Charash & Spector, 2001), which was demonstrated in the current study when those who experienced non-reciprocal backup behavior reported decreased team attitudes.

According to equity theory (Adams, 1963), individuals perceive fairness based on the transactional nature of inputs to outputs and respond accordingly to restore equilibrium by adjusting their inputs or withdrawal of positive behaviors such as helping (Hanisch & Hulin, 1990). This has been demonstrated with OCBs, as individuals who experience citizenship fatigue will reduce future organizational contributions (Bolino & Grant, 2016). However, OCBs differ from backup behaviors in that an individual can decrease OCBs without direct effect on performance. The discretionary nature of interpersonal helping behaviors changes when it is tied into team performance, as a team is a composite of individual performers who must coordinate their performance to function as a unit. Research has indicated that team task-related helping is viewed as an

in-role behavior (Taber & Deosthali, 2014). As a team becomes reliant on backup behavior to maintain productivity, pressure is created to provide backup even when non-reciprocity is present. Helping behaviors are taxing to individuals when they are pressured to perform them (Bolini & Grant, 2016) and this is manifested in other negative outcomes for the individual.

Although individuals will provide backup under non-reciprocal circumstances to maintain the productivity of the team, the negative effects are manifested in other forms. Individuals low in team perceptions will experience greater difficulty. Negative impact of over-reciprocating prosocial behavior includes exhaustion, inefficiency, injustice, unethical behavior, and exploitation (Bolino & Grant, 2016). Individuals who are over-reciprocating backup behavior are drawing on personal resources of time and energy. Although this contributes value to the team, it can become more draining than performing other prosocial behaviors that involve informational or social resources (Bergeron, 2007). Individuals who are experiencing burnout from prosocial behaviors are also more likely to engage in counterproductive work behaviors (Bolino & Grant, 2016). Further, when individuals are compelled to engage in backup, this can undercut personal performance for team performance that can have negative impact for their long-term career. Research has found that individuals who engage in OCBs will have lower salary and promote less compared to those individuals who do not engage in OCBs (Bergeron, 2013).

There have also been demonstrated negative effects for backup recipients. For example, team members who receive high amounts of backup decreased their motivation and taskwork in a subsequent task (Barnes et al., 2008), which can lead to social loafing

or excessive member dependency; therefore, it is important to balance the need for interdependence with the need for self-reliance (Porter et al., 2003). As individuals feel that it is more satisfying to be able to complete tasks without assistance, having to accept help creates negative perceptions. For example, individuals will fear their team members will have a diminished image of them or will question whether the intentions of the help provider are self-serving (Thompson & Bolino, 2018). Individuals who harbor negative feelings about accepting help have decreased job attitudes and were viewed by the supervisor as having lower levels of in-role performance, citizenship behavior, and creativity (Thompson & Bolino, 2018). In addition, those who are high in extraversion have been demonstrated to secure more backup than individuals who are low in extraversion (Porter et al., 2003). Therefore, individuals low in extraversion are less likely to have reciprocal exchanges than their extraverted team members when competing requests for backup are present. Further, individuals are less likely to accept help when they view the help provider as lacking competence or capable of providing quality assistance (Thompson & Bolino, 2018).

It is noteworthy that the findings of the present study supported the relationship between reciprocity and team cohesion. This is an indication that reciprocity influences the team members' affect toward each other, as when reciprocity was low, the strength of the interpersonal relationships on the team were also low. The literature indicates that teams low in cohesion lack well-defined behavioral norms (Cohen et al., 2012). This study demonstrated that individuals who perceived non-reciprocity of backup behavior also reported decreased levels of trust, cooperation, dependability, and teamwork.

Therefore, non-reciprocal backup behavior hinders the team's ability to have positive perceptions of each other, which are needed for relatedness. Reciprocal social exchanges have been demonstrated to rely on trustworthiness and positive affective regard, which is especially important for interdependent teams (Thomas et al., 2020). In addition to providing instrumental benefits, social exchanges also provide social approval and a sense of belonging through meaning and structure (Love & Forret, 2008). When the team reciprocated backup behavior, this resulted in increased ratings of the perceptions needed for the effective functioning of the team, as this fosters the team's ability to gauge and meet the needs of each other.

In addition, this study's findings supported the relationship between reciprocity and team viability. Research has indicated that cooperation is a significant predictor of team viability perceptions (Sinclair, 2003), and that role overload negatively affects team viability (Marrone et al., 2007). This study demonstrated that individuals who perceived non-reciprocity of backup behavior also reported lower levels of team adaptability, problem solving, integration of new members, and longevity. Considering that team viability is an indicator of a team's ability to function as an intact unit over time (Barrick et al., 1998), this is an indication that the use of non-reciprocal backup behavior for productivity may impact the team's ability to sustain itself. Therefore, teams that utilize non-reciprocal backup behavior for the short-term outcome of team effectiveness do so at the expense of the team's long-term functioning. When teams are implementing backup behaviors, importance should be given beyond mere productivity and effectiveness, as simple accomplishment of the job in the short-term may have negative ramifications if

backup behaviors are not executed in a way that the individual team members perceive as fair.

Although the findings of this study supported the relationship between reciprocity and team perceptions, they did not support the hypothesized relationship between non-reciprocal backup behavior and self-efficacy. This finding is interesting, as self-efficacy perceptions entailed the participants assessing themselves, unlike team cohesion and viability where participants assessed their team members. There are two potential reasons to consider for the lack of support regarding the relationship between non-reciprocity and self-efficacy. First, it is worth noting that the largest frequency of ratings for self-efficacy was "*strongly agree*," indicating that participants were potentially unwilling to rate themselves unfavorably. The rating for team cohesion and team viability did not demonstrate this pattern of responding, indicating that the participants most likely found it easier to report less than favorable perceptions of team members. Therefore, the relationship between reciprocity and self-efficacy could be masked due to the participants finding it difficult to rate themselves unfavorably (Podsakoff et al., 2003). Self-efficacy is difficult to capture outside of self-report measures as other sources are not able to indicate how an individual perceives themself. Anonymous computer-administered questionnaires were used to reduce socially desirable responding (Podsakoff et al., 2003); however, the construction of the items might have contributed to socially desirable responding. In addition, the three-item scale was short in length to reduce bias from responding fatigue and carelessness. However, scales short in length can also produce

carry-over when responses to previous items influence responses to current items (Podsakoff et al., 2003).

An alternate and more probable explanation for the lack of support for the relationship between non-reciprocity and self-efficacy may be the need to account for workload distribution and job demand. Barnes et al. (2008) indicated that workload distribution would moderate backup behavior such that an uneven workload distribution would facilitate the ability to provide backup. Conversely, an even workload distribution would increase job demand for backup providers. It thus remains possible that when the backup over-reciprocator is able to assist team members without job demand increasing, negative effects on self-efficacy are not present. Consequently, it is potentially only when over-reciprocating backup behavior increases job demand that negative effects of non-reciprocity decrease self-efficacy.

Therefore, fairness perceptions may have a minimal effect on self-efficacy when job demand is low. Because team cohesion and team viability involve the interactions with other team members, fairness perceptions will more readily be influenced through over- and under-reciprocating, even when job demand has not increased. However, self-efficacy is built through positive mastery experiences (Chowdhury et al., 2002), and providing backup can be reinforcing competence experience for backup providers. It is only when those tasks overwhelm the individual that the imbalance of reciprocity will negatively influence self-perceptions. Failure will decrease perceptions of self-efficacy (Chowdhury et al., 2002), and this is only present when an individual is unable to meet the demands of their tasks. If the over-reciprocator is successful at managing their

workload while also providing backup behavior, negative mastery information is not present. Therefore, over-reciprocators could have increased ratings of self-efficacy, indicating the imprecision of the hypothesized relationship between non-reciprocity and self-efficacy. Measurement of workload distribution may further assist in differentiating how job demand influences the relationship between non-reciprocity and self-efficacy.

Practical Implications

The findings of this study are important for organizations to consider, as it was revealed that backup behavior is not a cure-all for team effectiveness. Individual perceptions of the team will be influenced depending on whether backup behavior is reciprocal. Although backup behavior has been found to increase productivity, when organizations are reliant on non-reciprocal backup behavior, the gains made in the short-term for effectiveness are at a cost to the longevity and relatedness of the team. The concern organizations have for fairness perceptions should be extended to backup behavior, as fairness perceptions are needed for the positive social exchanges inherent to backup behaviors.

Organizations should ensure that teams have the needed resources and staffing to complete tasks, as this will decrease an extraneous need for backup. In addition, citizenship fatigue is more likely when individuals do not feel supported by the organization (Bolino & Grant, 2016). Organizations can promote reciprocity to ensure backup behaviors are beneficial. By implementing the recommendations from the backup literature, this will promote positive outcomes for team members. For example, an uneven workload distribution will enable those with a lower workload to provide backup

without neglecting their own assigned tasks (Barnes et el., 2008). To reduce requests for backup that do not have a legitimate need, team members should be high in conscientiousness, as members high in conscientiousness have been found to better discern when asking for help is appropriate (Porter et al., 2003). When backup providing is low on a team, a central member of the team who models backup behaviors will increase the other team members performing backup behaviors (Chen et al., 2005).

Limitations and Future Direction

There are limitations that must be considered with any study that uses a convenience sample, such as crowdsourcing. For example, Mturk workers will rush through studies which can lead to inaccurate results (Hamby & Taylor, 2016). The present study was designed to ensure sufficient effort in responding, including the use of multiple attention checks. Although Mturk workers closely reflect the general population and provide diversity of occupations (Cheung et al., 2017), the sample was limited in race and educational background. Participants of this study were majority White/Caucasian and college educated. Therefore, caution should be taken when extrapolating findings to minority races or to occupations that do not require college education.

Further, several steps were taken to ensure a representative sample with the correct experience for this study. For example, qualification criteria included interdependent taskwork that was assessed through a teamness measure and the participants' industry, occupation, and employment information were gathered. While the teamness measure was administered to ensure participants' team taskwork required reciprocal independence, it could have introduced a selection bias into the sample.

Specifically, participants in this study may have a greater preference for work that requires teams as compared to the general population.

In addition, the use of existing work teams would be better suited to examining the influence of certain factors. The cross-sectional design of this study limited the ability to examine the influence of time-based factors. Future research with a longitudinal design could capture the team's attitudes as they change over time, as well as rule out common method bias (Podsakoff et al., 2003). Significantly, due to the correlational nature of this study, causality cannot be determined. Although it is hypothesized that lack of reciprocity results in decreased perceptions in team cohesion and viability, it is possible that the lack of perceptions of team viability and cohesion, in fact, result in lack of reciprocity. Therefore, increasing perceptions of cohesion and viability may result in an increase of reciprocal backup behavior on teams. For example, research has demonstrated that team cohesion and performance are related positively, and reciprocally, over time. The cohesion to performance relationship grew stronger over time while the performance to cohesion relationship remained consistent over time (Mathieu et al., 2015). Future research should implement designs better suited to capturing these factors.

In addition, other team attitudes and well-being can be examined for influence with reciprocity of backup behavior, as this may have positive effects on individual perceptions of other team attitudes (i.e., satisfaction, commitment). Team viability and team cohesion were examined in this study due to the importance these variables have on interdependent teams, as the more reciprocal social exchanges are needed on a team, the greater the effect there will be on altering how team members evaluate each other

(Thomas et al., 2020). Although not examined in this study, team cohesion and team viability have demonstrated relationships with other team attitudes. For example, team viability has been demonstrated to have a positive relationship with team goal commitment (Aube & Rousseau, 2005). Further, non-reciprocity can have negative consequences for well-being, as when providing help is a burden it can create work overload, stress, or reduce levels of performance (Grant, 2008). Therefore, future research should examine the relationship between backup reciprocity and other attitudes and well-being, as well as interaction effects that might exist among them.

Interestingly, prosocial motivation was not found to influence backup behavior in this study. Prior research indicates that individuals will vary in sensitivity to obligations, which is a motivator to engage in social exchanges (Eisenberger et al., 1987), and that certain individuals place more value on being compliant with norms (Lam & Lambermont-Ford, 2010). A qualitative study performed by Taber and Deosthali (2014) asked participants an open-ended question of why they engage in task-related helping behaviors, which 22% of participants indicated that providing task-related help was a personal value. Therefore, why an individual is motivated to help stands to influence engagement in backup behavior, as some individual will provide help even when backup is not reciprocal due to helping others being a moral norm. Although no effects of prosocial motivation were hypothesized in this study, exploratory analysis was conducted for the potential influence of individual differences of prosocial motivation. The exploratory analysis for the effects of these differences was not significant enough to influence the relationship examined within this study. However, future research should

further explore the influence of prosocial motivation on backup behavior due to individuals varying in sensitivity to obligations, norm compliance, and motivations to provide help.

Further, research would benefit by examining workload distribution and job demand, as these two factors potentially influence the relationship between non-reciprocal backup behavior and self-efficacy. Future research should include a job demand measure to capture the moderator of workload distribution (Barnes et al., 2008), as this would allow differentiation of over-reciprocating from the influence of high job demand versus low job demand. Other potential moderators should also be examined with reciprocity, for example, legitimacy of need has been demonstrated to moderate backup behavior (Porter et al, 2003). Reciprocity may influence the attributions made by the backup provider, such that reciprocal backup behavior will increase legitimacy of need attributions, whereas non-reciprocal backup behavior could decrease legitimacy of need attributions. Also, although fairness perceptions were the rationale for the effects of reciprocity, this study did not measure fairness perceptions. Future research should measure fairness perceptions to examine the mediating effect.

Conclusion

Prior research has pointed to the potential of backup behavior having unintended negative consequences on team social outcomes (Barnes et al., 2008; Porter et al., 2003); therefore, this study's aim was to expand on prior research on backup behavior by examining the individual perceptions that are generated from engaging in this team process. Specifically, this study examined the effects of reciprocity through the

theoretical framework of distributive justice, social exchange theory, and norms of reciprocity. The findings of this study reveal that when backup behavior is non-reciprocal it will negatively influence the individual perceptions of team viability and team cohesion. Of significance, teams who ensure reciprocity of backup behavior will have increased productivity, with the benefit of positive influence on the team's relatedness and their ability to remain intact over time.

References

Adams, J. S. (1963). Towards an understanding of inequity. *The Journal of Abnormal and Social Psychology, 67*(5), 422-436. https://doi.org/10.1037/h0040968

Anderson, S.E., & Williams, L.J. (1996). Interpersonal, job, and individual factors related to helping processes at work. *Journal of Applied Psychology, 81*(3), 282-296. https://doi.org/10.1037/0021-9010.81.3.282

Aube, C., & Rousseau, V. (2005). Team goal commitment and team effectiveness: The role of task interdependence and supportive behaviors. *Group Dynamics: Theory, Research, and Practice, 9*(3), 189-204. http://doi.org/10.1037/1089-2699.9.3.189

Baker, D.P., & Salas, E. (1992). Principles for measuring teamwork skills. *Human Factors, 34*(4), 469-475. https://doi.org/10.1177/001872089203400408

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37*(2), 122–147. https://doi.org/10.1037/0003-066X.37.2.122

Barnes, C.M., Hollenebck, J.R, Wagner, D.T., DeRue, D.S., Nahrgang, J.D., & Schwind, K.M. (2008). Harmful help: The cost of backing-up behavior in teams. *Journal of Applied Psychology, 93*(3), 529-539. https//doi.org/10.1037/0021-9010.93.3.529

Barrick, M.R., Stewart, G.L., Neubert, M.J., & Mount, M.K. (1998). Relating member ability and personality to work-team processes and team effectiveness. *Journal of Applied Psychology, 83*(3), 377-391. https//doi.org/10.1037/0021-9010.83.3.377

Beal, D. J., Cohen, R. R., Burke, M. J., & McLendon, C. L. (2003). Cohesion and Performance in Groups: A Meta-Analytic Clarification of Construct Relations.

Journal of Applied Psychology, 88(6), 989–1004. https://doi.org/10.1037/0021-9010.88.6.989

Bergeron, D.M. (2007). The potential paradox of organizational citizenship behavior: Good citizens at what cost? *Academy of Management Review, 32*(4), 1078-1095. https://doi.org/10.5465/amr.2007.26585791

Bergeron, D. M., Shipp, A. J., Rosen, B., & Furst, S. A. (2013). Organizational Citizenship Behavior and Career Outcomes: The Cost of Being a Good Citizen. *Journal of Management, 39*(4), 958–984. https://doi.org/10.1177/0149206311407508

Blau, P.M. (1964). *Exchange and power in social life*. New York: Wiley.

Bolino, M.C., & Grant, A.M. (2016). The bright side of being prosocial at work, and the dark side, too: A review and agenda for research on other-oriented motives, behavior, and impact in organizations. *The Academy of Management Annals, 10*(1), 599-670. https://doi.org/10.5465/19416520.2016.1153260

Burch, G.S.J., & Anderson, N. (2004). Measuring person-team fit: development and validation of the team selection inventory. *Journal of Management Psychology, 19*(4), 46-426. https//doi.org/10.1108/02683940410537954

Cannon-Bowers, J., & Bowers, C. (2011). Team development and functioning. In S. Zedeck (Ed.), *APA handbook of industrial and organizational psychology, vol 1: Building and developing the organization* (pp. 597-650, Chapter xxxiv, 686 Pages) American Psychological Association, Washington, DC. http://doi.org/2048/10.1037/12169-019

Cheung, J.H., Burns, D.K., Sinclair, R.R, & Sliter, M. (2017). Amazon Mechanical Turk in organizational psychology: An evaluation and practical recommendations. *Journal of Business Psychology, 32*, 347-361. https//doi.org/10.1007/s10869-016-9458-5

Chowdhury, S., Endres, M., & Lanis, T.W. (2002). Preparing students for success in team work environments: The importance of building confidence. *Journal of Managerial Issues, 14*(3), 346-359.

Cohen, A., Ben-Tura, E., & Vashdi, D.R. (2012). The relationship between social exchange variables, OCB, and performance. *Personnel Review, 41*(6), 705-731. https//doi.org/10.1108/00483481211263638

Cohen-Charash, Y., & Spector, P.E. (2001). The role of justice in organizations: A meta-analysis, *Organizational Behavior and Human Decision Processes, 86*(2), 278-321. https://doi.org/10.1006/obhd.2001.2958

Colquitt, J.A., & Jackson, C.L. (2006). Justice in teams: The context sensitivity of justice rules across individual and team contexts. *Journal of Applied Social Psychology, 36*(4), 868–899. https://doi.org/10.1111/j.0021-9029.2006.00047.x

Costa, P.L., Passos, A.M., Silva, S.A., Sacadura-Leite, E., Tavares, S.M., Spanu, F., Dimitrova, E., Basarovska, V., Milosevic, M., Turk, M., Panagopoulou, E., & Montgomery, A. (2014). Overcoming job demands to deliver high quality care in a hospital setting across Europe: The role of teamwork and positivity. *Journal of Work and Organizational Psychology, 30*, 105-112. http://doi.org/10.1016/j.rpto.2014.11.001

Cropanzano, R., Li, A., & Benson, L. (2011). Peer Justice and Teamwork Process. *Group & Organization Management, 36*(5), 567–596. https://doi.org/10.1177/1059601111414561

Cruza-Guet, M. C., Spokane, A. R., Caskie, G. I., Brown, S. C., & Szapocznik, J. (2008). The relationship between social support and psychological distress among Hispanic elders in Miami, Florida. *Journal of counseling psychology, 55*(4), 427–441. https://doi.org/10.1037/a0013501

Ehrhart, M.G., & Naumann, S.E. (2004). Organizational citizenship behavior in work groups: A group norms approach. *Journal of Applied Psychology, 89*(6), 960-974. https//doi.org/10.1037/0021-9010.89.6.960

Eisenberger, R., Cotterell, N., & Marvel, J. (1987). Reciprocation ideology. *Journal of Personality and Social Psychology, 53*(4), 743-750. https://doi.org/10.1037/0022-3514.53.4.743

Grant, A. M. (2008). Does intrinsic motivation fuel the prosocial fire? Motivational synergy in predicting persistence, performance, and productivity. *Journal of Applied Psychology, 93*(1), 48–58. https://doi.org/10.1037/0021-9010.93.1.48

Grant, A., & Dutton, J. (2012). Beneficiary or benefactor: Are people more prosocial when they reflect on receiving or giving? *Psychological Science, 23*(9), 1033-1039. http://doi.org/10.1177/0956797612439424

Goulder, A.W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review, 25*(2), 161-178. https://doi.org/10.2307/2092623

Greco, L.M., Whitson, J.A., O'Boyle, E.H., Wang, C.S., & Kim, J. (2019). An eye for an eye? A meta-analysis of negative reciprocity in organizations. *Journal of Applied Psychology, 104*(9), 1117-1143. http://doi.org/10.1037/apl0000396

Hackman, J.R. (1987). The design of work teams. In J. Lorsch (Ed.), *Handbook of organizational behavior* (pp. 315-342). Englewood Cliffs, NJ: Prentice Hall.

Hamby, T., & Taylor, W. (2016). Survey satisficing inflates reliability and validity measures: An experimental comparison of college and Amazon Mechanical Turk samples. *Educational and Psychological Measurement, 76*(6), 912–932. http://doi.org/10.1177/0013164415627349

Hanisch, K. A., & Hulin, C. L. (1990). Job attitudes and organizational withdrawal: An examination of retirement and other voluntary withdrawal behaviors. *Journal of Vocational Behavior, 37*(1), 60-78. https://doi.org/10.1016/0001-8791(90)90007-O

Harris, T.C., & Barnes-Farrell, J.L. (1997). Components of teamwork: Impact on evaluations of contributions to work team effectiveness. *Journal of Applied Social Psychology, 27*(19), 1694-1715. https://doi.org/10.1111/j.1559-1816.1997.tb01620.x

Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis*. Guilford Press.

Horvath, M., & Andrews, S. B. (2007). The role of fairness perceptions and accountability attributions in predicting reactions to organizational events. *The*

Journal of Psychology: Interdisciplinary and Applied, 141(2), 203-222. http://doi.org/10.3200/JRLP.141.2.203-223

Hu, J., & Liden, R.C. (2015). Making a difference in the teamwork: Linking team prosocial motivation to team processes and effectiveness. *Academy of Management Journal, 58*(4), 1102-1127. https://doi.org/10.5465/amj.2012.1142

Huffmeier, J., & Hertel, G. (2011). Many cheers make light the work: How social support triggers process gains in teams. *Journal of Managerial Psychology, 26*(3), 185-204. https://doi.org/10.1108/02683941111112631

Jawahar, I. M., & Stone, T. H. (2011). Fairness perceptions and satisfaction with components of pay satisfaction. *Journal of Managerial Psychology*, *26*(4), 297-312. http://doi.org/10.1108/02683941111124836

Kamdar, D., & Van Dyne, L. (2007). The joining effects of personality and workplace social exchange relationships in predicting task performance and citizenship performance. *Journal of Applied Psychology, 92*(5), 1286-1298. https//doi.org/10.1037/0021-9010.92.5.1286

Kaplan, D. M., & Ferris, G. R. (2001). Fairness perceptions of employee promotion systems: A two-study investigation of antecedents and mediators. *Journal of Applied Social Psychology*, *31*(6), 1204-1222. http://doi.org/10.1111/j.1559-1816.2001.tb02670.x

Konradt, U., Garbers, Y., Böge, M., Erdogan, B., & Bauer, T. N. (2017). Antecedents and consequences of fairness perceptions in personnel selection: A 3-year longitudinal

study. *Group & Organization Management, 42*(1), 113-146. http://doi.org.2048/10.1177/1059601115617665

Koopman, J., Rosen, C. C., Gabriel, A. S., Puranik, H., Johnson, R. E., & Ferris, D. L. (2019). Why and for whom does the pressure to help hurt others? Affective and cognitive mechanisms linking helping pressure to workplace deviance. *Personnel Psychology, 73*(20) 333-362. https//doi.org/10.1111/peps.12354

Kouchaki, M., Smith, I. H., & Netchaeva, E. (2015). Not all fairness is created equal: Fairness perceptions of group vs. individual decision makers. *Organization Science, 26*(5), 1301-1315. https//doi.org /1732321384

Lam, A., & Lambermont-Ford, J. (2010). Knowledge sharing in organizational contexts: A motivation-based perspective. *Journal of Knowledge Management, 14*(1), 51-66. https//doi.org/ 10.1108/13673271011015561

Lee, K., & Allen, N.J. (2002). Organizational citizenship behavior and workplace deviance: The role of affect and cognitions. *Journal of Applied Psychology, 87*(1), 131-142. https//doi.org/10.1037//0021-9010.87.1.131

Li, A., Cropanzano, R., & Bagger, J. (2013). Justice climate and peer justice climate: A closer look. *Small Group Research, 44*(5), 563-592. https//doi.org/10.1177/1046496413498119

Li, N., Zhao, H.H., Walter, S.L., Zhang, X., & Yu, J. (2015). Achieving more with less: Extra milers' behavioral influences in teams. *Journal of Applied Psychology, 100(4),* 1025-1039. http://dx.doi.org/10.1037/apl0000010

Liang, J., Krause, N. M., & Bennett, J. M. (2001). Social exchange and well-being: Is giving better than receiving? *Psychology and Aging, 16*(3), 511-523. http://doi.org/10.1037/0882-7974.16.3.511

Love, M. S., & Forret, M. (2008). Exchange relationships at work: An examination of the relationship between team-member exchange and supervisor reports of organizational citizenship behavior. *Journal of Leadership & Organizational Studies, 14*(4), 342-352. http://doi.org/10.1177/1548051808315558

Marks, M., Mathieu, J.E., & Zaccaro, S.T. (2001). A temporally based framework and taxonomy of team processes. *Academy of Management Review, 26*(3), 356-376. 131. https//doi.org/131.212.109.57

Marks, M.A., Sabella, M.J., Burke, C.S., & Zaccaro, S.J. (2002). The impact of cross-training on team effectiveness. *Journal of Applied Psychology, 87*(1), 3-13. https//doi.org/10.1037//0021-9010.87.1.3

Marrone, J.A., Tesluk, P.E., & Carson, J.B. (2007). A multilevel investigation of antecedents and consequences of team member boundary-spanning behavior. *The Academy of Management Journal, 50*(5), 1423-1439. https//doi.org/20159482

Mathieu, J.E., Kukenberger, M.R., D'Innocenzo, L., & Reilly, G. (2015). Modeling reciprocal team cohesion-performance relationships, as impacted by shared leadership and members' competence. *Journal of Applied Psychology, 100*(3), 713-734. http://dx.doi.org/10.1037/a0038898

McCulloch, B. J. (1990). The relationship of intergenerational reciprocity of aid to the morale of older parents: Equity and exchange theory comparisons. *Journal of Gerontology, 45*(4), S150-S155. http://doi.org/10.1093/geronj/45.4.S150

McGrath, J.E. (1964). *Social psychology: A brief introduction*. New York: Holt, Rinehart & Winston.

McIntyre, R. M., & Salas, E. (1995). Measuring and managing for team performance: Lessons from complex environments. In R. A. Guzzo & E. Salas (Eds.), *Team effectiveness and decision-making in organizations* (pp. 9–45). San Francisco: Jossey-Bass.

Nahum-Shani, I., & Bamberger, P. A. (2011). Explaining the variable effects of social support on work-based stressor–strain relations: The role of perceived pattern of support exchange. *Organizational Behavior and Human Decision Processes, 114*(1), 49-63. http://doi.org/10.1016/j.obhdp.2010.09.002

Organ, D.W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lexington, MA: Lexington Books.

Organ, D.W., & Ryan, (1995). A meta-analytic review of attitudinal and dispositional predictors of organization citizenship behavior. *Personnel Psychology, 48*(4), 775-802. https://doi.org/10.1111/j.1744-6570.1995.tb01781.x

Pearce, J.L., & Gregerson, H.B. (1991). Task interdependence and extrarole behavior: A test of the mediating effects of felt responsibility. *Journal of Applied Psychology, 76*(6), 838-844. https://doi.org/10.1037/0021-9010.76.6.838

Podsakoff, P. M., MacKenzie, S. B., Lee, J., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879-903. http://doi.org/10.1037/0021-9010.88.5.879

Podsakoff, P.M., Niehoff, B.P., Mackenzie, S.B., & Williams, M.L. (1993). Do substitutes for leadership really substitute for leadership? An empirical examination of kerr and jermier's situational leadership model. *Organizational Behavior and Human Decision Processes, 54*, 1-44. https://doi.org/10.1006/obhd.1993.1001

Porter, C.O.L.H. (2005). Goal orientation: Effects on backing up behavior, performance, efficacy, and commitment in teams. *Journal of Applied Psychology, 90*(4), 811-818. https//doi.org/10.1037/0021-9010.90.4.811

Porter, C.O.L.H, Gogus, C.I., & Yu, R.C. (2011). Does backing up behavior explain the efficacy-performance relationship in teams? *Small Group Research, 42*(4), 458-474. https//doi.org/10.1177/1046496410390964

Porter, C.O.L.H., Hollenbeck, J.R., Ilgen, D.R., Ellis, A.P.J., West, B.J., & Moon, H. (2003). Backing up behaviors in teams: The role of personality and legitimacy of need. *Journal of Applied Psychology, 88*(3), 391-403. https//doi.org/10.1037/0021-9010.88.3.391

Roch, S.G., Shannon, C.E., Martin, J.J., Swiderski, D., Agosta, J.P., & Shanock, L.R. (2019). Role of felt obligation and endorsement of the just world hypothesis: A

social exchange theory investigation in organizational justice context. *Journal of Applied Social Psychology, 49,* 213-225. https://doi.org/10.1111/jasp.12578

Rousseau, V., & Aube, C. (2010). Team self-managing behaviors and team effectiveness: The moderating effect of task routineness. *Group and Organization Management, 35*(6), 751-781. https//doi.org/10.1177/1059601110390835

Salas, E., Sims, D.E., & Burke, C.S. (2005). Is there a "big five" in teamwork? *Small Group Research, 36*(5), 555-599. https//doi.org/10.1177/1046496405277134

Seers, A. (1989). Team-member exchange quality: A new construct for role-making research. *Organizational Behavior and Human Decision Processes, 43,* 118-135. https://doi.org/10.1016/0749-5978(89)90060-5

Seers, A, Petty, M.M., & Cashman, J.F. (1995). Team-member exchange under team and traditional management. *Group & Organizational Management, 20*(1), 18-38. https://doi.org/

Sinclair, A. L. (2003). The effects of justice and cooperation on team effectiveness. *Small Group Research, 34*(1), 74–100. https://doi.org/10.1177/1046496402239578

Skarlicki, D. P., & Folger, R. (1997). Retaliation in the workplace: The roles of distributive, procedural, and interactional justice. *Journal of Applied Psychology, 82*(3), 434–443. https://doi.org/10.1037/0021-9010.82.3.434

Smith-Jentsch, K.A., Kraiger, K., Cannon-Bowers, J.A., & Salas, E. (2009). Do familiar teammates request and accept more backup? Transactive memory in air traffic control. *Human Factors, 51*(2), 181-192. https//doi.org/10.1177/0018720809335367

Smither, J. W., Millsap, R. E., Stoffey, R. W., Reilly, R. R., & Pearlman, K. (1996). An experimental test of the influence of selection procedures on fairness perceptions, attitudes about the organization, and job pursuit intentions. *Journal of Business and Psychology*, *10*(3), 297-318. http://doi.org.2048/10.1007/BF02249605

Sulistyawati, K., Wickens, C.D., & Chui, Y.P. (2009). Exploring the concepts of team situation awareness in a simulated air combat environment. *Journal of Cognitive Engineering and Decision Making*, *3*(4), 309-330. https//doi.org/10.1518/155534309X12599553478791

Taber, T.D., & Deosthali, K. (2014). Analysis of self-reported motives for task-related helping: Implications for an integrated theory of helping. *Journal of Business Psychology*, *29*, 343-366. https//doi.org/ 10.1007/s10869-013-9327-4

Thomas, J. S., Loignon, A. C., Woehr, D. J., Loughry, M. L., & Ohland, M. W. (2020). Dyadic viability in project teams: The impact of liking, competence, and task interdependence. *Journal of Business and Psychology*, *35*, 573-591. http://doi.org/10.1007/s10869-019-09647-6

Thompson, P. S., & Bolino, M. C. (2018). Negative beliefs about accepting coworker help: Implications for employee attitudes, job performance, and reputation. *Journal of Applied Psychology, 103*(8), 842-866. http://doi.org/10.1037/apl0000300

Van Dyne, L., & Ellis, J.B. (2004). Job creep: A reactance theory perspective on organizational citizenship behavior as over-fulfillment of obligations. In J. A. M. Coyle-Shapiro, L. M. Shore, M. S. Taylor, & L.E. Tetrick (Eds.), *The employment*

relationship: Examining psychological and contextual perspectives (pp. 181-205). Oxford: Oxford University Press.

Wilk, S.L., & Moynihan, L.M. (2005). Display rule "regulators": The relationship between supervisors and worker emotional exhaustion. *Journal of Applied Psychology, 90*(5), 917-927. https//doi.org/10.1037/0021-9010.90.5.917

Appendix

Appendix A: Task Interdependence (Pearce & Gregerson, 1991)

1-*never*, 2-*once in a while*, 3-*about half the time*, 4-*most of the time*, 5-*always*

1. I work closely with others in doing my work.
2. I frequently must coordinate my efforts with others.
3. My own performance is dependent on receiving accurate information from others.
4. The way I perform my job has significant impact on others.
5. My work requires me to consult with others fairly frequently.

Appendix B: Consent Form

You are invited to be in a research study of individual perceptions of team processes. You were selected as a possible participant because of your experience working on a team. We ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by: Rebecca Lindgren and Dr. Alexandra Luong, Psychology Department of the University of Minnesota Duluth

Procedures:

If you agree to be in this study, we would ask you to do the following things:

1. You will be asked to indicate how much you agree with a series of 25 statements regarding your personal experiences from your employment in a team context.
2. You will be asked to answer general questions about your industry, occupation, and demographics.

The estimated time to respond to all the statements and questions is approximately 10 minutes.

Confidentiality:

The records of this study will be kept private. In any sort of report we might publish, we will not include any information that will make it possible to identify a subject. Research records will be stored securely and only researchers will have access to the records.

Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with the University of Minnesota. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and Questions:

The researcher(s) conducting this study is (are): Rebecca Lindgren and Dr. Alexandra Luong. You may ask any questions you have now. If you have questions later, you are encouraged to contact them at the University of Minnesota-Duluth Psychology Department, (218) 726-8685, or at lindg396@d.umn.edu or aluong@d.umn.edu.

This research has been reviewed and approved by an IRB within the Human Research Protections Program (HRPP). To share feedback privately with the HRPP about your research experience, call the Research Participants' Advocate Line at 612-625-1650 (Toll

Free: 1-888-224-8636) or go to z.umn.edu/participants. You are encouraged to contact the HRPP if:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.
- You have questions about your rights as a research participant.
- You want to get information or provide input about this research.

Will I be compensated for my participation?

If you agree to take part in this research study, we will pay you $0.75 for your time and effort.

Can I be removed from the research?

The person in charge of the research study or the sponsor can remove you from the research study without your approval. If you are removed from the study, you will not be compensated. **Possible reasons for removal include not paying sufficient attention to the questions that are being asked.**

Appendix C: Team-Member Exchange Scale (Seers, 1989; Seers et al., 1995)

Original Scale:

1. How flexible I am about switching jobs with others.
2. How flexible others are about switching jobs with me.
3. How often I ask others for help.
4. How often I volunteer extra help.
5. How willing I am to finish work assigned to others.
6. How willing others are to finish work assigned to me.

Modified Scale:

1-*never*, 2-*once in a while*, 3-*about half the time*, 4-*most of the time*, 5-*always*

1. I am flexible about switching jobs with others.
2. Others are flexible about switching jobs with me.
3. I often ask others for help.
4. I often volunteer extra help.
5. I am willing to finish work assigned to others.
6. Others are willing to finish work assigned to me.

Note: Providing items were 1, 4, 5 and receiving items were 2, 3, 6.

Appendix D: Job Self-efficacy Scale (Wilk & Moynihan, 2005)

1-*strongly disagree*, 2-*disagree*, 3-*somewhat agree*, 4-*agree*, 5-*strongly agree*

1. I am certain that I can meet the performance standards of this job.
2. I am confident that I am able to successfully perform my current job.
3. I feel I have the skills and knowledge necessary to complete my job effectively.

Appendix E: Team Cohesion Scale (Podsakoff et al., 1993)

1-*strongly disagree*, 2-*disagre*e, 3-*somewhat agree*, 4-*agree*, 5-*strongly agree*

1. There is a great deal of trust among members of my work group.
2. Members of my group work together as a team.
3. The members of my work group are cooperative with each other.
4. My work group members know that they can depend on each other.
5. The members of my work group stand up for each other.
6. The members of my work group regard each other as friends.

Appendix F: Team Viability Scale (Rousseau & Aube, 2010)

1-*strongly disagree,* 2-*disagree,* 3-*somewhat agree,* 4-*agree,* 5-*strongly agree*

1. Team members adjust to the changes that happen in their work environment.
2. When a problem occurs, the members of this team manage to solve it.
3. New members are easily integrated into this team.
4. The members of this team could work together for a long time.

Appendix G: Prosocial Motivation (Grant, 2008)

Original Scale:

Why are you motivated to do your work?

1. Because I care about benefiting others through my work.
2. Because I want to help others through my work.
3. Because I want to have positive impact on others.
4. Because it is important to me to do good for others through my work.

Modified Scale:

Please indicate why you are motivated to do your work by rating how much you agree with the following statements.

1-*strongly disagree*, 2-*disagree*, 3-*somewhat agree*, 4-*agree*, 5-*strongly agree*

1. I care about benefiting others through my work.
2. I want to help others through my work.
3. I want to have positive impact on others.
4. It is important to me to do good for others through my work.